SEQUENCE LISTING

<110> Conner, Timothy

Dubois, Patrice

Malven, Marianne

Masucci, James

<120> PLANT REGULATORY SEQUENCES FOR SELECTIVE CONTROL OF GENE EXPRESSION

<130> maize promoter sequences

<140> n/a

<141> 2001-06-28

<150> 60/214,357

<151> 2000-06-28

<160> 111

<170> PatentIn version 3.0

<210> 1

<211> 22

<212> DNA

<213> a fully synthesized adaptor primer sequence

<400> 1
gtaatacgac tcactatagg gc   22

```
<210>   2

<211>   19

<212>   DNA

<213>   a fully synthesized adaptor primer sequence


<400>   2
actatagggc acgcgtggt                                                    19


<210>   3

<211>   32

<212>   DNA

<213>   a fully synthesized adaptor primer sequence


<400>   3
agggcaagct tggtcgacgg cccggggctg gt                                     32

<210>   4

<211>   28

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   4
ggtggatgcg gcttcgggtg cttcagcg                                          28


<210>   5

<211>   39

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   5
ggatccagat ctggcagact cagtgccttg gcagcactg                              39
```

<210> 6

<211> 26

<212> DNA

<213> a fully synthesized primer sequence

<400> 6
gaaaggtggc aaggaggaga accacc   26

<210> 7

<211> 39

<212> DNA

<213> a fully synthesized primer sequence

<400> 7
ggatccagat ctcttgtttt gggccatcag tagtgcttc   39

<210> 8

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

<400> 8
actcgtcgcg gccgttggcg gcagccg   27

<210> 9

<211> 39

<212> DNA

<213> a fully synthesized primer sequence

<400> 9
ggatccagat ctcccacgcc ccggccggca cgttgacac   39

<210> 10

```
<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  10
gcggtcatgc ctcccttgag catgctc                                    27


<210>  11

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  11
ctgggcaacg atggcaccag cgatgac                                    27


<210>  12

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  12
cgtcgtcgta ccagcgcagc gtcgtca                                    27


<210>  13

<211>  39

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  13
ggatccagat ctcatcttgg gtatggtggc ggcgacggc                       39


<210>  14
```

<211> 33

<212> DNA

<213> a fully synthesized primer sequence

<400> 14
ggatccagat ctctgcacca ggggcttggt gcg   33

<210> 15

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

<400> 15
cagtacaaat aagccgtgca gggaaac   27

<210> 16

<211> 39

<212> DNA

<213> a fully synthesized primer sequence

<400> 16
ggatccagat cttccttctt tgttgatctg tgtcaccat   39

<210> 17

<211> 34

<212> DNA

<213> a fully synthesized primer sequence

<400> 17
ggatccagat ctctgaaagt cagaaagtgt aagg   34

<210> 18

<211> 27

<212>   DNA

<213>   a fully synthesized primer sequence

5

<400>   18
tgacgacgag gacggcgaag aggatcc   27

10

<210>   19

<211>   39

15

<212>   DNA

<213>   a fully synthesized primer sequence

20

<400>   19
ggatccagat ctgcggtggt ggtggtacgt cggcggcgg   39

25

<210>   20

<211>   28

30 <212>   DNA

<213>   a fully synthesized primer sequence

35

<400>   20
tgagcaggac gccggcgcgg tccctgtc   28

40 <210>   21

<211>   24

<212>   DNA

45

<213>   a fully synthesized primer sequence

50 <400>   21
tggagcggtc gagcttgccg atgc   24

<210>   22

55

<211>   27

<212> DNA

<213> a fully synthesized primer sequence

5

<400> 22
acctttgtgc cattccattt cgcgatg   27

10

<210> 23

<211> 27

15 <212> DNA

<213> a fully synthesized primer sequence

20

<400> 23
acacccggtg taacgtcaca gcctcgc   27

25 <210> 24

<211> 27

<212> DNA

30 <213> a fully synthesized primer sequence

35 <400> 24
gggtagacgt tgacaccacg caggagc   27

<210> 25

40
<211> 39

<212> DNA

45 <213> a fully synthesized primer sequence

<400> 25
50 ggatccagat ctaattcctc ggctatcgtc gtgagccag   39

<210> 26

55 <211> 30

<212> DNA

<213> a fully synthesized primer sequence

<400> 26
tagcccgcca cccgccgctg ccgcttcatc   30

<210> 27

<211> 39

<212> DNA

<213> a fully synthesized primer sequence

<400> 27
ggatccagat ctgggtcgcc aaaacaaccc gtgcgcacc   39

<210> 28

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

<400> 28
gagcaggagc aggacgaggc acgcgac   27

<210> 29

<211> 37

<212> DNA

<213> a fully synthesized primer sequence

<400> 29
ggatccagat ctcggacgag gaggaggccg gcgccat   37

<210> 30

<211> 32

<212> DNA

<213>   a fully synthesized primer sequence

<400>   30
ggatccagat cttgcattgc atttgcatct cg   32

<210>   31

<211>   26

<212>   DNA

<213>   a fully synthesized primer sequence

<400>   31
cgcagaggac cttcttcatc tccatg   26

<210>   32

<211>   39

<212>   DNA

<213>   a fully synthesized primer sequence

<400>   32
ggatccagat ctgcgggtgg atcacttcgt cgctcctgg   39

<210>   33

<211>   26

<212>   DNA

<213>   a fully synthesized primer sequence

<400>   33
ctttgtgcag tccgtcttgc cgtcgc   26

<210>   34

<211>   39

<212>   DNA

<213>   a fully synthesized primer sequence

<400> 34
ggatccagat ctgccgtcgc tggtcgcgcc gagtttgga   39

<210> 35

<211> 32

<212> DNA

<213> a fully synthesized primer sequence

<400> 35
ggatccagat ctctccttcc tgtggccgcc gg   32

<210> 36

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

<400> 36
gagcgccagc accagtagcg cggcggc   27

<210> 37

<211> 39

<212> DNA

<213> a fully synthesized primer sequence

<400> 37
ggatccagat ctgaggccct cgcctatgcg cgccctgcg   39

<210> 38

<211> 30

<212> DNA

<213> a fully synthesized primer sequence

```
<400>   38
ccttgtagcc gcacgcgccg ccgtccgtgg                                    30
```

```
<210>   39
```

```
<211>   39
```

```
<212>   DNA
```

```
<213>   a fully synthesized primer sequence
```

```
<400>   39
ggatccagat cttgtcagtt aacccgtcgc gcccgccgt                          39
```

```
<210>   40
```

```
<211>   32
```

```
<212>   DNA
```

```
<213>   a fully synthesized primer sequence
```

```
<400>   40
ggatccagat cttattgtcc acgaacgacc ag                                 32
```

```
<210>   41
```

```
<211>   27
```

```
<212>   DNA
```

```
<213>   a fully synthesized primer sequence
```

```
<400>   41
cgtgtgcggg atcagttgcg cttgcgc                                       27
```

```
<210>   42
```

```
<211>   36
```

```
<212>   DNA
```

```
<213>   a fully synthesized primer sequence
```

```
<400>  42
ggatccagat ctatgctgaa gctgctgaga gtgcgg                                    36
```

<400> 43

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

```
<400>  43
cagcacgcga gaaggatcag cgcgaac                                              27
```

<210> 44

<211> 40

<212> DNA

<213> a fully synthesized primer sequence

```
<400>  44
ggatccagat ctccctccct ctatatcgtc tcgtgtgctg                                40
```

<210> 45

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

```
<400>  45
ggcgcataca accattaggg tgaacag                                              27
```

<210> 46

<211> 27

<212> DNA

<213> a fully synthesized primer sequence

```
<400>  46
ctgagagtgt tgtttgtgga agcagcc                                        27


<210>  47

<211>  35

<212>  DNA

<213>  a fully synthesized primer sequence



<400>  47
ggatccagat ctgctagttc tctcctcgcc tttgg                              35


<210>  48

<211>  26

<212>  DNA

<213>  a fully synthesized primer sequence



<400>  48
ccaacagcgc ctccttcaga ggctcg                                         26


<210>  49

<211>  39

<212>  DNA

<213>  a fully synthesized primer sequence



<400>  49
ggatccagat ctttcgctgt ggccgctcgt cccgcggta                          39


<210>  50

<211>  32

<212>  DNA

<213>  a fully synthesized primer sequence



<400>  50
```

```
ggatccagat ctgctaactc tggtgtgaaa cc                                    32
```

```
<210>   51
<211>   20
<212>   DNA
<213>   a fully synthesized primer sequence
```

```
<400>   51
gcggccaccg aggccaagcg                                                  20
```

```
<210>   52
<211>   20
<212>   DNA
<213>   a fully synthesized primer sequence
```

```
<400>   52
ccgtcctggg cgaccaccgt                                                  20
```

```
<210>   53
<211>   27
<212>   DNA
<213>   a fully synthesized primer sequence
```

```
<400>   53
gggcaccccg ctgcgccgt tcttgga                                           27
```

```
<210>   54
<211>   27
<212>   DNA
<213>   a fully synthesized primer sequence
```

```
<400>   54
taccctgtgg tcgccggaca tggtgtt                                          27
```

```
<210>  55

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  55                                                          20
ctgcacgcct ggcctgggct


<210>  56

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  56                                                          20
tcggcgttgt gtcgttgggc


<210>  57

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  57                                                          27
gcagaggccg gccggcggcg acgcggt


<210>  58

<211>  40

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  58                                                          40
ggatcctaga tctgcgacgc ggtggaggac gtacggtggt
```

```
<210>  59

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  59
cgagcgacga cgagatgatc                                              20


<210>  60

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  60
ccgttcacca cgtcgatcag                                              20


<210>  61

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  61
gcggctcctt attacggccg ccatcga                                      27


<210>  62

<211>  40

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  62
ggatcctaga tctcgacacc gtgtgtgtgt ggactccggt                        40
```

```
<210>  63

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  63
gtacggtcag cccaacggtg                                              20


<210>  64

<211>  20

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  64
gggctttgcc agggagccga                                              20


<210>  65

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  65
ttgccgtcct tgaagatggg gacgttg                                      27


<210>  66

<211>  27

<212>  DNA

<213>  a fully synthesized primer sequence


<400>  66
ctggtagggt ggcaggttca cgttctt                                      27


<210>  67
```

<211> 20

<212> DNA

5

<213> a fully synthesized primer sequence

10 <400> 67
gaccccagcg cggactgctg   20

<210> 68

15

<211> 20

<212> DNA

20 <213> a fully synthesized primer sequence

<400> 68

25 ggagctcgac tgctctcact   20

<210> 69

30 <211> 27

<212> DNA

<213> a fully synthesized primer sequence

35

<400> 69
tgcgcggggg gcggtggctg cttctag   27

40

<210> 70

<211> 27

45

<212> DNA

<213> a fully synthesized primer sequence

50

<400> 70
tgttgccttc gtctttgtgg gggctgg   27

55

<210> 71

```
<211>   20

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   71                                                                    20
ggcgagtgcg tgcgttcgtg


<210>   72

<211>   20

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   72                                                                    20
gaagtgggtc ttgcagtaca


<210>   73

<211>   27

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   73                                                                    27
gtcctgcgtg ccggtgaaag acatggt


<210>   74

<211>   40

<212>   DNA

<213>   a fully synthesized primer sequence


<400>   74                                                                    40
ggatcctaga tctccggacg cctgtctgtg gctgcacgaa


<210>   75

<211>   30
```

<212> DNA

<213> a fully synthesized primer sequence

5

<400> 75
ggatccagat ctagtagtgc ttctatttag   30

10

<210> 76

<211> 27

15

<212> DNA

<213> a fully synthesized primer sequence

20

<400> 76
agatctctgg gcaacgatgg caccagc   27

25

<210> 77

<211> 28

30

<212> DNA

<213> a fully synthesized primer sequence

35

<400> 77
agatcttggt tctctgcaga aacgaccg   28

40

<210> 78

<211> 39

<212> DNA

45

<213> a fully synthesized primer sequence

50

<400> 78
ggatccagat ctatttcctg tcccccctgt gaatgtcgg   39

<210> 79

55

<211> 35

<212>   DNA

<213>   a fully synthesized primer sequence

5

<400>   79
ggatccagat ctgctagttc tctcctcgcc tttgg   35

10

<210>   80

<211>   547

15   <212>   DNA

<213>   Zea mays

20

<400>   80
aaactaattt acacctcaat caaatttaac atgtggattg tgatgaatac tatagtacca   60

aacaaagcat tagggtttct attcgtgtat acccctaatt agttggtatg ctgccttcta   120

25   gtaaggggta aaaaagggat tcaaaaaata cagaagcaaa acaataatt tattctcatt   180

ttcactcccg caatatacca ttcccgaatg aaagaaaaaa caaattcctt tctttttat   240

30   ccctactaac ggccgaccat cggatttggt ctccacctca agtctctgcg agagttcctg   300

ccatcctctc aaacttacgg acacaacacc tataaaaatt cttcaccgtc gcccttcgca   360

actcacccca caaagcaata acccggccct ctcctttcgt caccatcaca tccagccagc   420

35   caacaaaaat gtcgcgcgtc acagctgcgg tgctctttta catcctcgcc gttgctgccc   480

tcagcgcggc cgaggccccg gcagagtcac cgaaggaagg cagtgctgcc aaggcactga   540

40   gtctgcc   547

<210>   81

45   <211>   666

<212>   DNA

<213>   Zea mays

50

<400>   81
ctgcggctgc tatcaccact caccaactcc aattaaagat ctcgctacgc tagctttgca   60

55

cttcctctct ctctctctac tggccggccc tgtcagtggc agcgcccggt ttgctgctag   120

```
ctgagctgcg ggcgtcgctc ttagatatag cccaaaactc actccaccac cactcgttcc      180

atggaaccct agaccaaaag tacttcacgc tctcgcctct cgctctcgcc ctctccctct      240

ccctctccgc agcaaaagag atcccggccg agaagggcgc gcgctagctg cccggctagc      300

tgctggcgcc cgcgcgcccg cgcatatatc tgtgtcatcg ccatcaccca caccatggcc      360

cggccggcca acaccgccgt attagctctg tctgtcgctc gtccacctgc gaccgactga      420

gcgatccatc tccaccgagc tctccgcgct aagcgctgtc cttgccgccg tcctcccctc      480

cgtcctctac gcatccattt ccgtgtgctg ctcgtgtgtg tctgcgcggg cgctcctgct      540

cctgctcctg ctccctccgg cccctcctcc cccgcccgcc cgcgcgacct gcacctgcac      600

agatcgggcg gccgggccga ccgaccgatc gatcgattat cgtgtcaacg gccggcgggg      660

cgtggg                                                                 666
```

<210> 82

<211> 1495

<212> DNA

<213> Zea mays

<400> 82
```
aaaatttact atgtaatttc atgtaaaaat ggtttctaat ttgatcgagt atatatatga       60

aaattttaga tgacttatag aaaaattcta gatccgccat tggctgcaga gtgtagagga      120

tgtgcatgca cagatgcact tcattgttgt tatatataca acaagttttc atgcaataca      180

agcctataaa taaatgtcct gactaagctt tcgtccacag aatttaccac ttcttccgct      240

gagtactacc gattcaacag aacagataga ccactcgtta acactgtaca cttctaccta      300

tatattcgct tctctcctct tgcaaatcat attgtcaata gtaacagtga gaagaacaca      360

caaaatgagg gttcttgtag agaagctgtt agtctctgtg tttttagcag cattctattc      420

aggttggttg agagtcagtt gtctgcgtga attatttccc aacagattgg tttccaatcc      480

actctttgtt tctggtgtac attattctta cgtggagcaa ctttctgatc tctttctttg      540

tctcaatttc gtgtagggtg catggtcgtg tctctagaat atgatcacac ggcaagcatc      600

gaggcaagtg ttgtccacgt taattttcta agctcgcgtg ctaaaacatt gtttattgca      660

agagttaaat gaaaatccgt taatctctgt gcatcatata acggagcgaa aaacattaaa      720

acgtatattt tcaagtaaaa ccatgtacag tttttttcttt cagtagtacg ataacctctt      780
```

```
gtcaggaatt tacagatgag aaaattcatc gatgtaatct ttcaagttca taaaatgctc        840

tcaacaatcc agctgcaaat cctgcaatcc tttgaatttg tttcgatacg aaacaatcca        900

tccgtattaa tccgtaggtc atttcgtttg gagtagaata gtttgaagtg ctgcaacttt        960

ttgctcgaat gacgtcgata caaatatacg tggtaccgta cgttcttata tgtttgtgaa       1020

ataaataatc cgcagtgcct tggcgaccca atgaaaccct tgtacaaggg cggcattgtc       1080

cagaacagcg agttcaacag cggactgatg ggctggtcga cacaccggaa cgtcaaggcc       1140

ggcgtgagca gatcgccgtc cggcaacaag tttgcagtgg tgcatggggc gggaagctac       1200

gtgagcagca gcggcaagct cctaccgtcc cacagcgtgt accagagaat ccagatgcag       1260

agcgacaggc actactcgct atcaggtacg tacgtgatct gagaggagga gacagatcga       1320

tgagaccaca tcgatcgtat ccctttttgac agtgtagcat tcccttcatg catggtttct     1380

ggtttgtgta gcatggctgc aggtgtcgaa cggcacgtcg gcacatgtga gggcggtgat       1440

caagtccccc aacggcgaac gcgtcatcgc tggtgccatc gttgcccaga gatct           1495
```

<210>   83

<211>   824

<212>   DNA

<213>   Zea mays

<400>   83
```
ctgccgctgg cgggcggcgg cggcggcgcc ctgaagccgg acttctatag ccagtcgtgc         60

ccgcgcgcgg agcggatcat tgcggaggtg atgcagacga agcagatggc gaacccgacg        120

acggccgcgg gcctgctccg cgtcttcttc cacgactgct tcgtcagcgg gtgcgacgcg        180

tcggtgctga tcgcgtccac ccagttccag aagtcggagc acgacgcgga gatcaaccac        240

tccctccccg gggacgcctt cgacgccgtg gtgcgcgcca agctggccct ggagctggag        300

tgccccgggg tggtgtcctg cgccgacatc ctcgcactgg cgtcgggcgt gctgattacc        360

atgaccggcg ggccccggta cccggttccg ctggggcgca gggactcgct gtcgtcgtcg        420

cccacggcgc ccgacgtgga gctgccgcac gccaacttca ccgtggaccg cctcatccag        480

atgttcggcg ccaagggggtt cacggtgcag gagctggtgg cgctgtccgg cgcccacacg       540

ctgggcttct cccactgcaa ggagttcgcc gaccgcctct acaacttccg caaccagggc        600
```
```

```
gggaagccgg agcagttcga ccccagcatg aacccgtcct acgccagggg gctgcaggac    660

gtgtgcaggg actacctcaa ggaccccacc atcgccgcgt tcaacgacat catgacgccc    720

ggcaagttcg acaacatgta cttcgtcaac ctcgagcgcg ccctcggcct gctcagcacc    780

gacgaggagc tgtggacgga cccacgcacc agccctggt gcag                     824
```

<210>   84

<211>   886

<212>   DNA

<213>   Zea mays

<400>   84
```
ctgccgcggt cggatttggt ggctaactag ggtttggtgc ttgagtggca ggcggagggt     60

atggcccgca gcagggttac tcggaagagc ggagcagcgc gcggcgggtg gccgaccact    120

acagcgcgcg gtccaaccag acactcgagg aacgcgagaa cagccccatc atccacctca    180

agaagctcaa caactgggtg ggtctcaatt cagtttactg ccctatcgaa ccgtccctgg    240

attcttgata aaaatggggg acccgtggtg tttgatacat cctgtgagta actgcactga    300

cggagtaact gttcaatttg tgtgtttgga cagatcaaga gtgtattggt ccagttgtat    360

gcacgcccgg gtgactgcgt tctcgatctt gcttgcggga aggttagtgg catgttgccg    420

ttgccctgca tagtagaaag caatggttcc tgagcttgat ggtagcatta accattaagg    480

tgtgcttatt tgtttgtaat tcagggaggt gatttgataa agtgggataa agccaaggtt    540

ggctactatg tagggggttga tattgctgaa ggctcggtta gtatcctgtc acataagaca    600

tttattctat gtgtacattt gtacaatgtg caccagaagt tgttatgtat tagctttag    660

cttcaccatt ttttaattct tataattgat gccttatgaa ttctcagtat gaactaatca    720

attgaacgct ttatgttgta atgatatctg atgtgaaata tactttgtgt ttctgcatca    780

cttttgagca caggcatata aatatattaa gaccttacac tttctgactt tcagataaaa    840

gattgcatga ctcgctacaa tggtgacaca gatcaacaaa gaagga                  886
```

<210>   85

<211>   812

<212>   DNA
```

24

<213> Zea mays

5   <400> 85
aacaatcaga acaccagcac caaatcggcc caagattcac cagcaaaaat tctttatatt   60

aacgatatgt gcaataagtt ttttttgtca gtttgtgcag tgccaattac catcaacgcc   120

10 tatgtaagct actagctcgg taacgagcac gtgccgtaac aagccgagct agcttaatat   180

gtcgtaatgt ctcattatac tcatcgttta gttagtgttt taaggtgtct aaattcacaa   240

catatgtatt tagacctaag ttacgtccag atttagagga ttttttttgt atctagtagg   300

15
aagccaaaac gactaatata atagaataga tggagtatta gttttctaaa caattttgta   360

ctaagaatcg aaaactgtat ctcggttggg cctgggccgg acctggttag cctgtgtaaa   420

20 ggctcccaat cgatcgcgca gcccggccgg cattggcgca ttgcacgctt ggctggatct   480

ccggccagcc attttcgttg tgaaccacta gtttcatccg tcaatttcat ccgtcccaat   540

taacagctac tcctaaatta atggcattct atacatggtt agctagcccc tgatttcact   600

25
cgtgtcctca cgtacccatc cttcccgtgg ctataaagcc ctccctcctc gccgcctcca   660

aagcagcaga aagcaatcga gaggagaacc agcagcctcc aataagagcc agccagagaa   720

30 actaataaaa ctctcgccgc cgccatccga gcgaacaagc caaccgaccc cgtccccaag   780

gcaatccgcc gccgacgtac caccaccacc gc   812

35 <210> 86

<211> 655

<212> DNA
40
<213> Zea mays

45 <400> 86
aaattaagag tactttgtat atctgttcag attataatgc aaacaaacac ctactataca   60

tagcagcata gaagtcgtca agttttgtgg accgctgaga aacccaacca aactcgacgg   120

50 attttcacca catttcacct tgccaatgcc atttgccatg cacaagacc aggtcaaaac   180

ggsccgctct attttttgaa tggtcaaaat ggcgttcttc tccgttgcac actatctcta   240

cgggcaacca gacaaatctt cggtctccca tgttatttaa ggtcaccata ggccctgctg   300

55
cgaaaccagg atagtttgtt tggctaccct cgtcgtcgtc tcactcaccc cgccttcacg   360

25

```
      cctccctcac caaataaggt cccgcccttt ttccgacatt cacagggggg acaggaaatc    420

      accggccatg gcctcgattc cgggcgacga ccttcgccgt catcttatcc gtcctcttct    480

  5   gtgccgcggc tggcaccgcc gtcgacaacg acctccccga ctacgtcatc cagggccgcg    540

      tctattgcga cacctgccgc gccgggttcg tgaccaacgt caccgagtac atcgcgggcg    600

      ccaaggtgag gctggagtgc aggcacttcg gcatcggcaa gctcgaccgc tccaa        655
 10
```

<210> 87

<211> 586

<212> DNA

<213> Zea mays

<400> 87
```
      aaattaagag tattttgtta gattatataa tctgttcaga ttataatgca aacaaacacc     60

      tactatacat agcagcatag aagtggtcaa gttttgtgga ccgctgagaa acccaaccaa    120

      actctatttt ttgaatggtc aaaatggcgt tcttctccgt tgcacactat ctctacgggc    180

      aaccagacaa atcttcgggt ctcccatgtt atttaaggtc accataggcc ctgctgcgaa    240

      accaggatag tttggctacc ctcgtcgtcg tctcactcac cccgccttca cgcctccctc    300

      accaaataag gtcccgccct tttccgacat tcacaggggg gacaggaaat cagcggccat    360

      ggcctcgatt ccgggcgacg accttcgccg tcatcttatc cgtcctcttc tgtgccgcgg    420

      ctggcaccgc cgtcgacaac gacctccccg actacgtcat ccagggccgc gtctactgcg    480

      acacctgccg cgccgggttc gtgaccaatg tcaccgagta catcgcgggc gccaaggtga    540

      ggctggagtg caagcacttc ggcatcggca agctcgaccg ctccaa                  586
```

<210> 88

<211> 679

<212> DNA

<213> Zea mays

<400> 88
```
      atctctatac atgagaaatt atttaggcct tgttcgatta ttcctattcc acgtggatta     60

      gatgagattt agacaaaatt agaaataatt ttgacttgct agggatttaa accaactcaa    120
```

```
tcccgttcaa ttcatataga ttgagattaa aacaaatatt gcccttagtg agattttatt    180

gcatcaacgc tcaacaccca tgtgtttta taacacatct tgcgtgacat ttgtccaact     240

actacgctaa atatgagaag ctgtcattta gtgattctat atatactatt cacttatgga    300

tacatttaac tgatggcgtt ttgttgagcg cgtcttattt atttttacat ggcagcatag     360

aagattagaa gtcgcacgtc caagttttgt ggaccgctga gaaactcaac caaattcgac     420

atatttttca cctccccatg ccacaaaacc aggtcaaaac ggctttctgg ccgtcgccca     480

ctatttgtac gggcagccag acaaatattc gggtctcgca gattatttaa ggacaccaca    540

ggctgcgtta cgaaaccagg ccagatttgc caccctcgtc tcaccctccc tccctcacac     600

aaataataag gaaaggtccc gcccttttcc tccgacatcc acagggggga ggggaaaaca     660

cgtgcattca cccggcggc                                                  679


<210>    89

<211>    483

<212>    DNA

<213>    Zea mays


<400>    89
cagcggcgtc gacgtcaaca gcatcaacct cgacggccgc accgcgctgc acatcgccgc     60

gtgcgagggc caccgcgacg tcgtcagggt gttgatcagc tggaaggcca acatcgacgc    120

gcgcgaccgc tggggaagca cggtgagcct gagccggccg cgcgccattg ccatttctct    180

cagctcatgc ccccatcaga tcgactttcc ttcctatcga tccatcctgc gtcgtcagac    240

cattcgcttc gcttctctga tcgtaggcag tagctgatgc caagttctac ggccactcca     300

gggtctacga tctcttgaaa ttccatggcg caaaggttcc ggtatgctta atctctgggc    360

actgaaactg aaacttctat cttgtctgtt atcgctactt gccaacgtgt gtggtggtgc    420

ccgcgaattc tccatccatc cgctgctgac ggatctatct gcggtcgttt ctgcagagaa     480

cca                                                                    483


<210>    90

<211>    1477

<212>    DNA
```

<213>   Zea mays

5

<400>   90

```
aaaaagcggt cgaactgata aactactgca gaagcttctc gtttgatata acttctgatt      60

agatctataa ataagttgtg agataagttg tgccaaatag ggccatgata tatgatgact     120

atcactatgt gcaaagttat agcactataa gtgtcacgac tttattgtga cattcatttt     180

tatactcatc atgagcatca tatgcatctc aattttgatc caaaaaacta actgtacatg     240

aaaccacatt ttgttgggtt ctgcttattc ccacggactg tcaaccacat catcgtacca     300

tctacgagaa caataacata gatttagagt ttttaaccaa ttcgtgcttc cacgcactat     360

ccgatgatca ctcgaaccgt ccgctaaaat acttaatgca catagttgat ttgtcacttt     420

atggttgatt tggtgataag gggatcacga gaggattcaa gagaattgag gtccctccaa     480

ccctcataat tcctggtcac caaatcagcc ctcaggagtc tgcctagccc cattagtcag     540

gccaactgcc tccatctcgt ggggagctaa agcagtaaca cattttcact cactctctca     600

ctccactcac ttgctctctc tagttctttc tcacactttc tctaagcaca agagaaagga     660

gaagccaggg tagggtaagg taaggagaag gagagaatag tgagcaccac tagcaagaag     720

gccacagaga tcaagtaaag gtgatgacca taagaagttg gggattgaag aggaaggagg     780

cctctcttcc caacggtttg gagttaggaa gctgtcatta tagaagccat tattacggtt     840

ggtacatcta cgagatagca tacagtacaa attaatatct taataaaatg gaactcaaaa     900

tactatagct cattaaagtc gtccatgaca ttggggtcac tattggtctc ctctttctcc     960

cgctcatctt gttgctgtta cttctccttc ctcagttcct ctccacatca tatccttgtc    1020

atcctacaat tttgcataaa ggagcacacg aaaagaagag cacgaacacg aaaagaaaga    1080

gcgaaagacc agtacatgca cactataatt gctctaacaa caataacaaa acaacaatac    1140

taagtttcaa aaacacataa ttgaaccaaa catcttagaa catgaagaaa aaaaaacatg    1200

ttgaaggtat ttatagggt ggagtacatc ctcgactaca caacatggac cgttgtttcc    1260

ttttcttacc cctttacgct caatacatat atttaatttt ttctcgaggg cgattctgcc    1320

atcacgcggc ctttattttg ggtatagcta gctgtttgaa ttccaccgga ttctagaaga    1380

gacagacgct ggactggatg gtagccagag aatggatcaa ctggtctcac gtctcaaaac    1440

tcgaacaatt cacgtgcggc tataggattg gtagccg                             1477
```

<210> 91

<211> 796

5 <212> DNA

<213> Zea mays

10
<400> 91
```
aaaggggcat gtgattggtg atccaatttc cctattatat cacgttacaa ttaaatctac     60

aaacaagacc aaaattgacc atgtttttaga gtaaaaaact taatagcata tggtgggtct    120
15
ccagttgttt tatattacta catgtcccgt gcatcgcgac atcacataaa tatattttg     180

taaaaaaaaa gcagagaata attttggcat gtcttgtaga tagggggtggt aatggatcat    240

20 gaccttaatt cttgcttcac aaaccaacaa ggcccttaat tttgttagtt caaaattata    300

ttgttttatg atctaaccct aacttgattc gatccttaaa tttgctagac taaattaaat    360

ggcccgttac cacccctact tgtagacctc attggtccga atttagctta ggccaaatac    420
25
ttcgctaagc cttttgttc tacaagacta caaccaaaga tgcccaaaat agttttgaat     480

tacgcgatgg actgcaagcc ctcagccctc cacgtcccgt cctcgcttcc accttattct    540

30 ctatggccat cctccttcct ccaccgccaa tcccgtggcg atctctttcg gccatccacc    600

gcacccgatc cttccacctc ctttcccgag aggctcttcc cccgcgagat ttgcactacc    660

gcgtcggtgc caccgccgcc acagcacccg tggcagcagc ttgccatggc gctgccggcc    720

35 ccctccgccc cgccgcaggt caccgcaaga cggcgctgcg gagtgcctgg ggtgcgcacg    780

ggttgtttgg cgaccc                                                    796
```

40
<210> 92

<211> 381

45 <212> DNA

<213> Zea mays

50
<400> 92
```
ctcatgatcc atattgttat ggattttttt gagatcacgt tttctatgtt tgattatcta     60

ttatatgtca tcatcataat gttaatttat ggaattaaaa tgatacagaa aatgcctata    120
55
attctaacat aatctaacaa tgtttattcg ttatagtaag tgatatgtta aaattaatac    180
```

29

```
     aaatatttat attagcattt ttagcgaata cgaatacaaa caattcaaat tttcaagaca      240

     tgtacgcaac cctacgataa gacctagact ttcggtctcg gcccgttgcc tgtcttggtg      300

5    agacaatcaa tggccatgct tctagattgg gctcaatgga tctaatgact gggccgagca      360

     gcgagatgca aatgcaatgc a                                                381


10   <210>    93

     <211>    2257

     <212>    DNA
15
     <213>    Zea mays


20   <400>    93
     cctcgtagtg ctaccctgcc tcgcctcctt cgtagaggtg tatggggtcc gtacaacccc       60

     atggcagatg ggtaacatga cttatgggta aagatgtgca acctctacag agtataaaac      120

25   tggtatatcg gtcgtgctca cggtcatgag cggctcggac cctcacatga gtaacttatg      180

     gaattaaact taattggtca tttgcatcgc attgtggttt atttattaat tttgatctct      240

     cattatttag gttggtattt acttatactt agtaactgct aataaaactt gaccaactta      300

30   ttaaaagcaa tgctttgcct taaccattat ttattgatca gcctaatacc atacatgagc      360

     cccccgcttt tggtgagctt atacacatta ttccccacac ttgctgagcg atgaactttt      420

35   gtgagctcac tcctgcgata aaactctccc ccccacaggt gaagagcagg tagcccagga      480

     ggacgactgc tacgaggagt ttgacgaggt ctaggagtcg tctcccagtt gacttaatgg      540

     cgccaaggaa ataatattag ttcggtttat tgttatgatt tatctttata agacacttcc      600
40
     actttgtaaa aatgtttgcg atatttatct ctatacactt ggtcattata tgggttgttc      660

     ttctttagcg cacatataag atgtacccgc gtttacccct taaattcggg tgtgacaagt      720

45   ttccttcctt ttcatccttc gtacagttat ctcactattt ttaatgggaa cactattcag      780

     aacatgacat gttgtcaaaa catcctcccc cacatgcctt tgccatatta tatgtttcta      840

     tcatggtatt cacctagtcg attaacgtcg gattctttct ttcgacaacc ctattagatt      900
50
     gaggcgagta tggaggtgtt cgttcatgaa ttattccatt ctctgaatag aaaagatcaa      960

     actcattgga aaaatactcc ccaccacgat gaaacctaac atgttttatt ttcttttcc     1020

55   aattgattgt ccaccttagt tttataagtc ttaaaacatc ctagcgttcc atatttagtt     1080

     tttagtagaa acacataaca ataccttagt tgtagcatta attaaagtca taaagtatat     1140
```

```
tttacctcct tttgtcaaca caccattcat gtcacaaata ttagagtgta tgagctctaa      1200

taatgtcatg tgcctctcgt ctacagcctt gtgtggctta tgcagttgct ttgcttgcac      1260

acacgcttgg catttataac ctttgacaat attgaaattc gaaatgaagc gcatgttgtg      1320

catgtcgtgc gcccatgtcc ccgtctcgtc ccaacaagga gagcgagcgt gcgagttttc      1380

ccattttctt ttcttaatag ctttaatcag gtagagacaa ctcgactatt taagttaacc      1440

ttactcctcc taaagtaaca agatggttcc gaagttacca ccatattata catgtgtgag      1500

tgagtctttg gaatttatag aaattattat ttgtgccaag cccaaattat ttgtgttatg      1560

gaaattccca agttatttaa ttgtgctctg cagtagaccc aaattaaata gcttctaata      1620

tgtaaattaa tattaatgga aatgaactga acttatatcc cggtatcata atcattttga      1680

tggtagcata tagaacaaaa tatatttact cattctcaag tgtaactgct atttgcaact      1740

actagagcat gcaatatttc tttcgaagag attaacgtga gaggaaacat gcgtgttttg      1800

ccaatacaat aaaatatttc tcagtagcaa cttctaagta acaatattta tccatctatt      1860

tttattcttt tccgattgat ttttttgtca gaaaaatcaa agaacgggaa ttgaatttgt      1920

ctcagccaca aatgacatag aaaatattaa tccaactcca cacttgcaa aaaaaaattg      1980

caaaccaacc agctaacccca accctatttc ggtcactcac gcacggccag cccgccaatt      2040

gaatgagccg ccgtccttgc ttcgctcgcg accgctcgcg ctgccgcacc agagcccta      2100

taaaacggcg ccccgtccag aggcaggaga agcaattgag agatcaccgg ccgtcgagcg      2160

agcagtctcc caattccacc caataactaa taacatctcc tcgaacgcca ggttccttgg      2220

accactatat ccaggagcga cgaagtgatc cacccgc                              2257
```

<210> 94

<211> 721

<212> DNA

<213> Zea mays

<400> 94
```
acagtatcat atgtaattaa aatcaactga cgccccgttt ggatcattgg aattgaattc        60

cattctaata atagtaattt agatttatat caattaagct aattcagttt tttgcaaaat       120

atatttgtat attattatta gcaagatgtt agagatattt atgtgctata ttttactat        180
```

agaggagtga gacgaagagt gttatgtaag ttacagagta gaaaaaaatt atactaatgc   240

ataaaatcat ttctcatcct gcacccatg aatttgagat agacttatat ctgaactttg   300

ggaaatggtg gaatgtcaaa tttcaaatta aataagttaa tttattaggt gaattccaat   360

tcctttgaaa caaagggatc taaacgtccc gtgagaaaat ttgcatgtgc acaaaagttc   420

acaatttgca tgctgacaca cgcatctctg ggtccgtacg attggtaaaa cttgatgagg   480

ttgcctttgt ctagcatccg catcaatagg acctttgaaa cggtaagagt tggtcatcga   540

gaacctgaaa aaaactaga ggacaggagt tctttattca agcatggcct caaaatagca   600

aagtccagac ggtcatttcg tgtaaatagc agacggtgct cctctgtctc ttgcaatctt   660

ccggaacatc catcgatctc cccccagcgg cgaggagagc cggcggccac aggaaggaga   720

a   721

<210>   95

<211>   893

<212>   DNA

<213>   Zea mays

<400>   95
attcgtgcta gattgtacaa aaaaaaatgg tagcctgata ggctataatt tagagatacg   60

ataaacaaaa acatactact acagaattgg cacagctatg aatattatta tactaactag   120

gtaagcatgc caaaccaaca tccgaatcct atttgttaaa tacccagcct ttcaaagctt   180

acaaaattta acggaaaatg tgtccaagta taaaaatata gtgatcaaat gcgtgtaagc   240

agtaataacg catagaaaag gtcaagagta ctgcagttgt gttctcaatg gtgcgtaggt   300

tgtatggacc gggctgcgta gttgtgttct caatgctgga gtggaggcaa ccgagcaggc   360

cgagctgcgc cggcccatga acgtttcgtt tcactccacg gctagagcca gacggacaga   420

cgcgctccca aacacaaaca catgtacaac ttaaaaaaaa acatgagtag cttgaacgag   480

tacatacata catggcgttg ggattgacgt ccatttccaa tccaacgcgg ccgcaccgca   540

tagacgcatg ttgcatgtca tgcacgaacg ggtctagaat agacagaaga gggggtgga   600

ggcagcagcc agatcggcgg tggctgggcg aacggacgcg cgggcaagac ggccagacgg   660

gtgttgcatt tgccgttgtg ggcaaaccac cgcgccacgg acagcgcgcg caccgctcct   720

tccaatgggc gacggaccca tataagccgc ggcgtcccgg ctccctgtcc ccactcgatc   780

```
gtcgtgcacg ccccccgccac cggccggatc gacagcaccg atcaccctga ccgtctgcgc    840

gcggcggctc tcacacaccg gcgacacgca gggcgcgcat aggcgagggc ctc           893
```

<210> 96

<211> 2660

<212> DNA

<213> Zea mays

<400> 96
```
ctgcttctaa catacccttca gaatgggata tccgaacagt ggcagttgct gttttttgctg    60

cagaagcatc tttgacgcta ctggatggct cacatgctca atttactgtc atgagaaatt    120

ttttaatgca ttccactcct gtcagcctgc aggtaacgat tctttccttc ttatttgcat    180

atatgtagca ttccatagtg tgtattcaca ggtattgaat tgtggtaata ttattgttat    240

ccttctcatt gcagagcatt ccattatttc caaccttatt gcagagcagt tttgtgcatt    300

ttaaagccga acgtttgtgg atgcttcgat tattatctgc tggatcaaat ctagctgatg    360

atgctaaaat atacaagaga ggaagagtat tagaacttgc tcttgccttc tgttcttcac    420

ctatttcaga ttttgaatcg aaggttttag tccttaaggt aaattctata cttatcttat    480

ttagtccagt tgacttcctg gatctgatag ctgcttggag atttgaatat ttgtttatgt    540

ttgatatgct tgctttgcat tgtaggtgtt gaagaagtgt gtttaaaata acttgcaaga    600

attttagaat aactaaaact atggtttgtg atactcccttc tgagtgtcct tacctctttg    660

atatatgata tactgtcact acataagcac acatatttct tgttttttaa tccatggcaa    720

acacttttat ccggatcgta tttattatac aagtataata tccatttgaa ggagaatagg    780

atcatgtatc ttctcttaac aatatatctt gccaattcat gcttgtaata tgcacttcag    840

taggtaactt ctgtcaatac cactttctaa gaattagaga ttgatctact tataacacat    900

ttcccccctta ttcatcatcg tcccttttct atttcaatga ttacctataa tccttttcta    960

tctctactct ttattatcct ttcttatcta ttgatattat gaatactcag ttactgtata    1020

acatcttctt tgttgataaa acatatgtgc agtcagttct ttatgtagaa catgtcttaa    1080

ctaattgctt tcctgcagat ttttcatcac cagctcaata ggatgaggaa cattttgctt    1140

taattggttt gatctgtcgt ggttgcttgt aatttgatat gagcaggagg caactaatca    1200
```

33

```
acaatgttca gtgtgcaggg ccacaccaca catatggact gcttcagttt gtatgtcaaa      1260

tctgttttcc acaaagaaat tgtttaaaca aaatgatcgc atcacaaaga ggatgggaca      1320

gtgatgaggc tttcaggtgg tgggcatagc tgctttcggg atagtgatga ggcaagataa      1380

agattcaaac agaagttcta ggagaaggct gtggagatag atgatctatg ttgaaaggat      1440

ggtgcatggt ggggtattaa aggctgcatg caagacaatt tcaaccatag caataaggtc      1500

acctcgcaca aagagcattt tcagaacagt aggctcgtga aatatttgtt ggatatgtat      1560

tgggagcttc gtcctgttac cagttcatcc ttaacacacc taacaaggta tgacccagca      1620

cgtgcagttg acccaatcat tgaagatggt cactacacct tgtttcgaag cctagcgaga      1680

tttgacgcct cagtgttcaa ttgttacacg cagatggtat ttgtgcagat accaggttta      1740

atgttgagca cagacaatgt ttaaagattt tacgtgttga ggttgtttta cttttggcca      1800

actgttgata gtcttttttg tacaaaagtg atgcattgta ctatcatata tagaagtttg      1860

catggtattg atggttccaa tatagtgatg aaataggtag attaaaatat aaaaaattat      1920

gtatggctag gatcacaaat gaattacgaa actttttctt ataacagtat aatacacatt      1980

tgtatataga gtattgttgt attacatatt cccgttgcaa cgcacgggca ctcacctagt      2040

ttagtacata taaaggtaat atatagcctt atcaacctgt ttcccatttt caaacgcaga      2100

tcacgcattg gtcttggcac ggagccactg aagttcagac aatacgagtt cgaatagtat      2160

aaaaccccaa gcatgcaatt caaagactag atctgaatgt gaggtcctcc aaaccattcg      2220

cttcagagca acaagaccct tcaaagctca aaccaaattt agcagacacg gcaacacaca      2280

acattggcct gctcttgaac aacaccgctg cagaatggac gttgctcctg aaacctctcc      2340

cctccaccgc tctgcccata gcccacccca ctccctcgct ataaaagcgt ccaagaacac      2400

ccaccataac aaagccgtga tccatccgaa taaacggcag actgtcatcc ctgccaaaat      2460

ctgagctcgc gtccgcagag gtccatggcg tccaagtccg tcgagctgcg catgacgctg      2520

ctgggcgtgg ccctgctagg gctgctgctg agccagcacg cggcacccgt cgatgctgcc      2580

gagagcgacg gccccagaaa ggaaaagact agcttcagca tgaacgtcgt cggcggccgc      2640

actctcagca gcttcagcat                                                  2660
```

<210> 97

<211> 1921

<212> DNA

<213> Zea mays

<400> 97

```
gtgcatattt tctctttttt ctgttttctt ttctctttag agtttcatat ttcaaatttt    60

gaattcaaat tagagtttca aattctggtc taaatgcagc aaccaaaatc tcggcgtgcg   120

tgcaatatat acttcttgtt attatatttc atattaacta ttgtatttca aatgatacaa   180

atgtgttgca cacatacaaa gaactttaaa ttttctagag ttatattgtt tgtccaatta   240

aaatattatt caaaactgaa tgttttatga ttatttgttt tgtatgatct ttatggagag   300

ataattcaat ttaagtctta tgaagaatac ttctgaacct gtacttcaat gaaactatta   360

atttatatga ggatccttca tttaaatctc ttgttttaaa ccataattat ttaaacctta   420

ggataaagtt ttcaaaatta tccaaaatat gattcaaggt gttacaaatt ctaccccctt   480

aaaaataatc tcgtcctcga gatttgtaag aaaagggatg caaaaggttt tgtttgcagt   540

ttggctttta gtttctattt ggtttcaaaa tcaaaagttt tttcaatact aattaccagg   600

tgattaggga cacatgagca tcatttatgc ctagccgact aattggcagg gtgagagatg   660

tttagtacaa ggataggttg gggtaagaaa gatttaggca aagtaagacg ccatcccaga   720

tggtggattt tgacttatct ggagatttgg cttaactcct atctttcctt gatgaggttg   780

atctatccct tctttggtct gggagcttcc attcgaacta tggacatata gttaagatag   840

atgtgggtag gatggattat atggtgtagg taggtcagaa tctctattag gttaaaacag   900

aggggttatg caactatcta atgggtaagg tagttggggg acagatatcc cccaggtcca   960

ctagaaggta agaaggcctc gcgagaggct ttaggcctgt tatctcgcta gaccatccct  1020

tcgtgggcca ggagaaaact gctagtggaa tgagccggag cgagaagaa gcagactcag  1080

gcccagcgga ctcgtgggac ttaagcgctc gtgagataat gtcgagttct aactacactt  1140

atttaccaag tgccttgctt tactgagtgt ccaacagtag ataaaagaag tgtcttcgta  1200

gagtgtcaca cactcaacaa accacctctt tgccaagtgt tgtattttac cgaatacggc  1260

actcatcaaa cgctatcttt gtcgagtgtc tgacattttg ctctcgccaa atgttttagc  1320

acttgaccag aatacgtctc tggtagtgtg atatggccaa agtttatgaa aatctacaac  1380

tattatgttt atcatatgat aaaactccgt gaaaacaccg ctatattttc cattggccaa  1440

tacaatacac agtggtgcgg ttggatccag ggtcttctaa tttgaaattt gtttcttaaa  1500

aaatatatat ttaaaaaaaa tgaggctgac gggcaagcca taaacagtgc attgcacggc  1560
```

35

```
aaggagtctc aacgaactca ttagttgcaa aagcacacat ttagcgctac aaacgctgcc    1620

gccagagaaa atacagctcg tcgccattcc catactccgt gcaaggataa tcaggggcgc    1680

gttgtgcgcg cacggcgcac gcatagcccg atggccgaca ccacgagagg tgtccacttg    1740

agccgacagg agctaaagac cagccgtttc gctccatgaa taatcgtcgc tcagatgata    1800

gatcacacaa ctcgcaagca atacggcagc agcgctatta tatatatggg tacaagcaag    1860

cacaagaagc atccatgctt aaggtgaagc aagcagcaca cgagacgata tagagggagg    1920

g    1921
```

<210> 98

<211> 1109

<212> DNA

<213> Zea mays

<400> 98
```
tgatagcttc gatgacagca aaggagcttc agatacaagc caaaggaaaa ggcgacgaag      60

acctaaatcc gagcagccga agatggggaa aatacgctac tgccctaaca acatttgtaa     120

acagtgaggg gtacaattgt aattatgtac taagtcggtt cgtctcccct ataaatagat     180

gaacagtaac ccgcataaat tacattttgc caggtgctac agctttgtat agctcaggct     240

ccaaaacaca ttcgtgctat cttgcactaa gaagtcaatg gtatgattgt aaacttgttt     300

tctataagag aaatgaaatt ctaaggcaca tgagatgagt tctcatatct tcgtcatgtt     360

tttatgtatt ctagtcgatt acatccaacc ttcgtccttg agtagttatc ccaaagactt     420

aacacttcaa ggatgaaggc ttctactttt taacattgtg ttgtcttgtt ttttatttca     480

tttagcaatt aaaagcaagt gactaacaca tggttaaacc caagatccga aaagaggcta     540

aaattgagca agaatgaaca aaagttggta agaggaacat aaaccaacct ttcttagcaa     600

cattcttcca aaaaagaag atcaaaacat gtacccttgt attttgtgaa aactggatct     660

ccaaaattgc ctacaatgga aggtggctac gagaaacggt tataatcgag gaggtagaga     720

gaattttatg ctacaacctt cacaggcggt ttccctaaga aacatccact ctaaatgtct     780

ttgcacatac ggttcactta aaaaaccgca aatgcaaatt gttcattttc actggaggtt     840

ttttaagcga accgctagag gaaatctcat ttgcaccggc gatccttaag acatatcatg     900

agcgaggttg ccttggaagc cggaagagtt ggtcaatgac ctataaaaag cagaggacac     960
```

```
         aggagtgccc tattcaagca ttgcctaaaa atagcaaagg ccaaacgatc atttcgtgta    1020

         catagcaaac ggtgctcctc tctctcaaga aaggatatct tcgggaacat ccatccatcc    1080

   5     ccaatcccca aaggcgagga gagactagc                                      1109


         <210>   99
  10
         <211>   1559

         <212>   DNA

  15     <213>   Zea mays


         <400>   99
  20     cctcaggcgt ctttctggaa ctgattcgtt ttcgctgctg ctctctgctg gttgctgcag      60

         gataaagttc ttctcaactg ctcagggggc ggtgtgtgcg ggacctgcgt cgtcgaggtg     120

         aacccaatgc agccagtcac aactcattct tctgaagcct gatgcagtga cattttctgt     180
  25
         cgaagatagg gcacaaggaa ctctgcagga taggtttcct gaagcctgcc tgatagtaca     240

         gttcattttg acactttgcc gcttcgctaa atttacaggt ggtcgaaggc aaggaaatgc     300

  30     tatccccaaa aaccgaagtg gagaaggagt tgctcaaaag ggtttgtagt ttgcacacac     360

         gactccatct gttcatcatc agaaccgttt tctttatcag aagaataagc ttgcaaactt     420

         cctagttttt aagtaaaagt gctaacctct tcgcgccaat tttcagaaac ccaagacgtg     480
  35
         gagattggcg tgtcaggcaa cggtgggcaa tgcagattca accggacagg tatgcacgaa     540

         tgctttccag tgtttgcttt cacgtactgt attcccaaac gaaaaggaa atttgaactg     600

  40     tccgttctga attttccgtc gaaagttgct ctgaattttt ttacaccatt attctcgaat     660

         atatatgctg ccactggata acgttttagc cgtgctgctt catgtttctt ttcacaaggg     720

         cataacgttg atagcatgcc tatgggattt gttgttttgc gcagatgatc attcaacagt     780
  45
         tgccggagtg gaagatacat gagtgggaca agtagaaggg cagatgccat ggaaatggg     840

         gaaaatgaga agcagttgat cagtagaata gctggtgcag attgatgaag cttttcatac     900

  50     tcaagcaaaa tcttgggcat gttttcacc atttgtagca caactgaagg agcatggatg     960

         aattagcatc gtcctgtaaa ctgttctctt ataatcagat cttgtttgga agcaactcag    1020

         tttttaagaa actgactttt attttttttag ctaggagtga ccggtttcat tgtttttaaaa   1080
  55
         aactgaaaat ccaatttcta caaactgatt tataaatcga tatgtttgga accaccttaa    1140
```

```
ttttaagatt agatgttttc aaacagaccc tacaaaaaca ggcgacttgt gtgcgcgcgt    1200

ctcgccggat cagatgtagc attgtcttat tggtggagcc caacatcatc taatggcatc    1260

aaattaatta aacaacattc tacatataag agagttatat attttaggtt tttattggta    1320

ttcttgtata atgcgatgct ttttttagga gtgcgttggc aacgtcctcc tgttgctcca    1380

agccgtccat agtttcattt tcattgcacc ggacatgcat ccacagcaaa gcacgcatgc    1440

atctaaaaat ggcaggtgca tgcctgcgcc cctacgtata tattactatc acgtagcttg    1500

ctataccaag gacaaatcaa accatagcat caatcatgtc tggtcgttcg tggacaata    1559


<210>   100

<211>   1821

<212>   DNA

<213>   Zea mays


<400>   100
aaactttgca aaacccaccc aacaaaatca cccccacatc cataacctct actaaatcca      60

ccaaacaaat tgcatccaaa cttaacacac cattaaaata aacggttcag atcgctagat     120

aaccccctta cccttacttc actcaaatct aatagacaat attattaaga tcatcccttta   180

tccctcattt ctctccatcc cctcccctgc gaccacaccg cccctagcct cccccacagt     240

attcccgctg ctgctgctgc tgccataaaa cctcccctcg caccactacc gccattgcca     300

tcgaccccac cgctctacgg gattgtagct ttagcacgag ctatatacta gtatgaataa     360

agaatctttt agccataaat tttgtggggg ttaaaactct agcaacgagc tacatttccg     420

gtcttatttt gtgctagtat ttgcacttct aagcccagat agtccatatt tcagtgttca     480

atttaatttt gtcatatgtg tgaactagtt cattaggact tgcgtagtaa gtttgggata     540

atcacaagga aaatgactcg acaagaggtt aacggttcta gtttgtggtt actaaattct     600

caataatttt cttgtagatg gtttgtcgta gatttaagga caaatccaga tgcatctcaa     660

atgtgtgcta ggatcaagta tcatacatat gatgactcat ggtacagaaa tcaatgtcac     720

ctctttatta tataatagaa gttctataca aaataactat ataaatacgt cataaaacga     780

ctacgatcct ccacaaccac agctgactag gagacgacga cctaaacccc tccgaactca     840

tcgtagcatc cttcatactc atcatcttgt ggtacctgtt cttgacatgg tgtgattata     900

gcaagggtga gctctcatat ggtcatcact cagcaagtgt ggggaaaagt acactgtaag     960
```

38

```
gcttaccaag gaaaatgatt aaggctgagc attgctttta attttgttgg tcaaaatttt    1020

attagcaaat actaagtata agtgaatacc aacccaatta aataattgat cagaaataaa    1080

tacccaaagt acatggagtt gtattttgag aaaatcatgg agatatgatt accttcttgc    1140

actattagta tatcacattg cagatgtatg tattttattt ttttatctag atctttccat    1200

gtgaagggca agcctggtgc gttggtgaca gctgtcccac ttagtcgcca agttgtaagt    1260

tattgaccat ttccttattt attattaggg tctcagattt atttgttctt aaaccgtaaa    1320

ccggtaatcg ctgtctattt tagttgtccc acttcatttt tatttttatc caagtgaggg    1380

gcggcacatg tcagcgtcaa ccagtaattg ctgtctattt caaggtggct cgatggtagg    1440

tcatccacca atgaataatg ttagctagcg acaacactag gagagtggag gtaaccaatt    1500

ttgggttgcc cggtgactct gctacctcgg gcaggtactg actgatctca ttactcgcat    1560

gtctggacga tatccgatga ctctagctaa aaatatacaa acgtttgcat gtctgccaca    1620

ctacacttaa atctctggtc tcccggcaaa aacgaagatc aaactagcaa ttagaaattg    1680

tgcgttcaca accattaaaa tcacccgtag cccgtgaagt tctcttctcc ccatagttta    1740

tttacttgtc ttctatatat aaagggctaa tgaaaagttg agcaaagtca tctcgtgcca    1800

ttctaaatag aagcactact g                                              1821
```

```
<210>    101

<211>    593

<212>    DNA

<213>    Zea mays


<400>    101
aaattgtttt ttatgagtaa tggaattttt gtttgcttaa ttatatgttc attttaataa      60

aacaacatat tttgttataa ctaaaagtct ataaaaaatg atgtaacatc gtatgtttag     120

tttgatgtca aaataggatg agccgagcgt gacaccatcc tcttgatttt ttgggactcc     180

gtcgtcacca aaaattgctc cggtgttcat ctcgtccgcg cgtaactttt atccaaaaac     240

aatagaaaat gtgaccgtcc cttctatcct cgttatacat ccaaccaaac gcattctaaa     300

gttgagatgg ataaaaaac gatgatcaat aacaacattg ataataaaaa acaagagttc     360

aaatgacatg gtgtgatggt gaatatatag acggcataat gaatagctgc cacctgctat     420
```

39

```
acagtccggg tccaaagtgt ccaactcgat agacgaccca ccagcgtcct agcttgccta      480

tatatgccac ctcttctcct ttcttgcatc actgctcgag gcttctagta gagagcacag      540

ctagcaaaac agagctccag aaactgaccg attggtttca caccagagtt agc            593
```

<210> 102

<211> 391

<212> DNA

<213> Zea mays

<400> 102
```
attcgtgtca caaagcctta acaataatcc acctgcatga tatgttttga ttgtgcgatg       60

ttaagaaaag attgttggat aggtgagcga tgccaatggc cgggacctgc tgcaccaaac      120

agagccagcg gcccgccttc ctcctcgcgc ctccgaaaca gaacagcaac gacgtccagc      180

caggggaggg gccatggggc cgcagtatat atacctgcgc cttgtaccac cgcccaccgt      240

cgcaccgtgc gcgcgtccct cgctcctgcg ccgcccgtcc gatccggtca ctggccgggg      300

agggctcaga aacctttcat ccaatacata catctatctg agccctttcc cgcggtgagg      360

cccgaccgga gtccacacac acacggtgtc g                                     391
```

<210> 103

<211> 1223

<212> DNA

<213> Zea mays

<400> 103
```
ctctcagcaa aggacggttc gaccatggag cgcagctcag cccaggggat ctccaggtag       60

tctttcctgt catcatcaga agagaatata tagcacgtat gaagggactt tcctattatg      120

atttagtgtg aaccaggtga tgcattcaac atcaggctat taagctaagc tgtcataagc      180

acagaaatgg atcaggcaat tagattcaga gcttgaagta cgtctgtaga aagaaaactc      240

aaggtcatcc cccatttcta cccccctccc cgatgcaata ctagatccgg tcatatctct      300

agggccgcaa tgattcgggg ccgccatacc ggtggagagc ctaggcgacc gaatcacaca      360

catgggccgt ggaagcacgc acagccactc aatgacacac gcacccggca cccagtcaga      420
```

```
         gaaagcaagc agccggtcgg ctcgggattt ccgcaaacgg gtagcaggcg cagggaggga          480

 5       gcgggcgaag aagccttacg ggtcgaggag gacgacgtcg gcgtggccct gcatagtctt          540

         ggcgaggagg gagccggcga cgccgccgcc aaccaccacg accctcgcct tctcctccgc          600

         ctccgccatc gcctgacgct cgcgccaccc agctgacaaa ctccccaccc acacccagct          660

10       cacgcggcgt tattaaccaa gctcgcgagg acataagtgg cggctttgga agaatcgggt          720

         gccgagtgct gaccgaccgc tgacgactcg agtactcgac cgacgcgtcg ggacggacgg          780

15       tgaagcgcgc gccatggtgc tgccaccccc tctcaggctc tcaccatccg accgcatgtg          840

         acctaccgac atgtgaatgc agttcttaac aattcttcta ctctactgga ctactactac          900

         acgactacta ttattataat tacatgaata aataagctgt caatgaatct atttaaacaa          960

20       aaaaaaagtt gtctttgcca tgacagggca tggtcgctgt cgcgtggtcg aaagtagcct         1020

         ttgccagcag cgggtaaccg aaataaccgt cgcgaactac cctccgagcc gtaggtgtac         1080

25       aagagcggct ggggatgctg ccacgtgggc cacccgggcg tctttaaacc ggcccgctgg         1140

         gagttccatg cttcctcgtc cctccctgca cgcctggcct gggctggccg cctccgacca         1200

         ccgtacgttc tccaccacgt cgc                                                1223

30       <210>    104

         <211>    1799

35       <212>    DNA

         <213>    Zea mays


40
         <400>    104
         ccttttgggc caatcacgat gggccttagg acactttcta aggcaagaac atgaaccttt           60

45       ttctttttct catattgtca tctgcgtatt gtttcatgaa gttgctatgc aacgtcacct          120

         gaagttgtaa ccaactccac gtcacctgaa gttgtaacca actccacgca tataatattg          180

         gtcctatttt gcagagcgta ggttctgttg gatctacctg atcaatagtt agcggctagt          240

50       gtaaataaaa tagatcctat gatccatcta agtttgaatt ttcatgttta ataatcagta          300

         tgtgactatt taaactaatc ttatttgcta atgttttttc gatatagttt aaaggctgta          360

         gaatatactt gaacttaggc aaagtggtga ccgagatgat caacacatca atcaagacgt          420

55       tagaagcctt gatgaaacat tcacgagaga cgagcaagga gtctaagacg ctaagataaa          480
```

```
taaaacctag accaaggcat gtggagaaat aaagtcaaac aaatgctact cgacaacatc    540

cagcttgtcc agtactgcac cagaccagcc cagagacaaa aagttcaaaa gcatgtaaaa    600

agaacacaac ggtaacacac cagatgtgtc cggtgctatg ccctatgaca taaccaacgc    660

cacaatgtgc acgatgtgct ctagaatgtg aggccagacg catccggtgg cacaacgaac    720

actttactca tctagggtta tagagtggat tgcaacatga cttggagatg acgacaactt    780

accgaacgtc acatttgacg acagatctcc aatggccaat aactgctgga aagccaatag    840

atacgtcaca tggacgcacc aaacgtgttt ggtgtctatg taaaatttgt tgtgtatccc    900

cacgaccaca tttacattgg gggctatata tacccccttg ctagccaaat agagggtggt    960

agagtatgtt gaaattgtag gagagtgtca agacacttca tcaagtgctc taaccacaca   1020

aaaaacactt aacaaagat tagatgagca gcatagtgat ttttgtgaat tgcttatgct   1080

agttaaacac atttatttac ccttgttgta ggttagggcc tagtgtttag tgttgtttgc   1140

atagcgctct taccactcat acactatttt tgtacaccag gggcctgaag tcttacacca   1200

atcgtgttta tggtgtgttc gtcaccgtgt gctaaaggaa acgaagccca caaggaccga   1260

ttcaggagaa gccatttta agacacactt atgtgtagtc aagtcacatg atctattcat   1320

agagttattc gacctagagc ttgacccttg tacgggaatt tatgcgatga gctttaatga   1380

ggactaagaa agctaagata caattaaact tattccgaaa ccgacaatta aagacacttc   1440

ttgggacgga gggagtagct gacgttccgt aatgcatgca agagaagtga ggagggccac   1500

gctagagaag agaagtacag aacggaatga gggacggtgg cgcatgtccc cgcaagatcc   1560

tgagctgatt ctaaatcaag catttgcttg accaagtcta tgcggcgcag agcccgcccg   1620

cgccctatgc ttgctccgga gctctcgttc gttccctgcc gcggcagcca tcgatcaccg   1680

gccccaacgc tagctttagc ttcgcctatt tacatacccg agcggagaag agaagagaag   1740

agaagcgatc gggattgtgg gcgagtgcgt gcgttcgtgc agccacagac aggcgtcgg    1799
```

<210> 105

<211> 1745

<212> DNA

<213> Zea mays

<400> 105
```
atctagtttt acagatctgg ctttggatag ttttcatggg ctgacaaaat tcgaggactt    60
```

```
       gtttgcttgg ttttctaagt ccggggtaga tgacacaaca tgacaaattt gtgaaccact   120

  5    agtgtacttt actctttgtt aatatattga gacgaatcga gttgagttgg ctcattatca   180

       atcaacctta gttgactgta accttttgac accggcacca tttttctaca gcactatata   240

       tgccagtttt ctgtcgttgg ttattgtgga agagggtcga acaatggtaa atttgtatgt   300

 10    tgcaagaatt tgaaatacag tagaagtaat aatataattg atccccaacg aaataaatca   360

       ggaggaagac ctcttctcgt ccattactag cagtaccata aaaagagaac agtggcaacg   420

       gccacgatgc agagagagta ctgccatgca aaccattgga agccggtagc ctaaaacagt   480
 15
       cgggacccaa cccaaagcag ggagggtcgc tccaggcaag aactgctcgt gtccacacgc   540

       tacgccgggg atgccggcct ttgtaacata tataagcgtc gccgcgaggc ctcgtcctcc   600

 20    cagtcccaga taaccccaca tcgtcagcca tggccaacag ggtcaccgtc gcaagcgtca   660

       tcgccgcggt ggacatcgtc gccgcgatcg gcaccatggc cgcggtgacc agcgccgacg   720

       acaacgatgg caatatgctc tccagcgtgg aggtctccac ggtgtgcgcc ttcacgcggt   780
 25
       acccggagaa gtgcgagcag agcctcaagc atgtcgtgag cgacacctcc agcccggagg   840

       acgtcttccg ggacgcgctc aacgtggcgc tggacgaggt ctccaccgcc ttccagcggt   900

 30    ccgcgcacat tggcaaggac gcccaggaca aactcagcag gaacgccatg gacgtgtgca   960

       agaagctcct ggacgacgcc accgaggacc tcagggccct ggcacgggtc aagcccgcgg  1020

       acgtggtgcg ccacgtcaag gacctccggg tccgggtctc cggtatcatg acctacgtct  1080
 35
       acacctgtgc cgacgggttc gagaagcccg agctcaagga ggccatgggc aaggtgctgc  1140

       agaactccac cgagctcagc agcaacgcgc tcgctatcct caccgccctc ggcgatctca  1200

 40    tgccggggaa agccaaagat ctgcaggcca ccctggcggg tgctgtgggg cacgaccgcc  1260

       ggcttcttgg cgggcagata ggcgatgccg aggaggtgac cagcggcggc cgcgggcttc  1320

       tggacgagat cgtgggcgtg gcaaacgcaa accggaagct cctgtcggat acgctggacg  1380
 45
       agatcaccgg catgtcccac ggcgcaaacg gccggcgctt gcttagctcc ttggggtctc  1440

       ggatttccag cgcccaggga gacgacgtcc ccgcccgcca ccagctgctg ggcgtgtcgc  1500

 50    ccgacgacga gaccgataac gctgcccggc gcaacctttt gtccaccgag ctcgagagca  1560

       tcgccagcac gtccgccgtg gcaaaccgcc agcttctcgc ggcggaggag ctccccgacg  1620

       agctcgccgg taagcgagag ctgctgtccc ggacgctcat ggggatcgac gaggcggcca  1680
 55
       ccgaggccaa gcgccagctt gatgaggcga cggcggagaa caccatgtcc ggcgaccaca  1740
```

43

gggta   1745

<210> 106

<211> 1151

<212> DNA

<213> Zea mays

<400> 106

```
aagctttctt tgccgagtgc cactaagcga ggaactcgga cactcagcaa cagctctgtc      60

atcgtcacga tgtctttct ttgtcgtgta ccagttggca ctcggttaag actttactga      120

gtgcccgata gaaagtactc ggcaaagaga ccgttgccga cgtttggttc actgagggct      180

ctttgctgcc ttttggactt gacaaagaag tcatctccag tactgtctcc taggacgcag      240

gatttatgtt ttttcccgga gctcgatctg tgggacatca cagatggtcc agtctggtga      300

tctaaaatgg acggtttgcc aagcccacag agaagtcttt aagatcttcc acgacgcacg      360

catgctttaa ggttagttag tgtttggtct gaaaaagcat caacaattag gaaactagaa      420

ctaaaattat taaaggacaa ctcgggaggc atgcatgttc ttcttctata gtgcgtgttg      480

agcctgagtt tggccttta ggctttatta gggggctcgc agtctagcta aggagttgta      540

ttgatgtgct gataaatatt atgttcgatc gtcaaagtgg tcttgtgcgg atcaattagg      600

ctcgatcatg gtgaaataaa ctaaccatcg gtaagcccgg gcagccccag agcatgcagc      660

ggcctacgtg aagcctgcgc atcgcatcgt cgtccatcgg acgctaacgg ccggccgctg      720

catgcgccgc cggcgaactc tctgctgagc cgcccgtcct ccctataagt agccatccca      780

gcaccgtcgt ctatcaacca cagacagagc gacatttcga ataacacagt tcagcgcgac      840

gatgggatcc ctcactaata acatcgtggc cgtgggcgtc gtccttgcgg cgctcgtcgc      900

cggcgggtcg tgcgggcccc cgaaggtgcc acccggcccc aacatcacca ccaactacaa      960

cggcaagtgg ctcaccgcta gggccacctg gtacggtcag cccaacggtg ccggcgctcc      1020

tgacaacggt acgagcggga tacatgttta tactcctcct gtaggtcgct ccttcatgta      1080

atgtgatgcg attaaaacgg tgcgcaggcg gtgcgtgcgg atcaagaac gtgaacctgc      1140

caccctacca g                                                          1151
```


<210> 107

<211> 2654

<212> DNA

5 <213> Zea mays

<400> 107

10 ctggtctgat tttgatgtct ttttaaatcg gctttcacag gctaaagccc gctgatgtag   60

   ctgagctatt gaaaagaact gggtcccatc taatttgtct cttaagcagg atagcaaccc   120

   atcaaaagcc atccctgcta gctctttgtc tgcgacatgg atccgaaagc atcgatttct   180
15

   agtgtctcgg aacctccaga tataatagtt aaccgattct tcacgtccct atcaagctaa   240

   agctaaatca gctagaccta attcattttc cccggaaaag aaatgtccat gaaatttact   300

20 ctctaaatca ttccaagaat taatggaatt aggaggcagg gcggcgtacc aagcaaaagc   360

   ggtaccagta agggataaag aaaataaaca aacacgaaat gcttccccat cggccaattc   420

   gcctaggtgt gctaggaact ggcctatatg ttcgtgtgtg cttctcctat tttcaccaga   480
25

   aaacttagaa aactctggta tcattgcccc ttgtggatat gggacaatgt caaaccggtg   540

   atcatatggc ttctgatatg attgccccac tctatccaca ccaactccga gtctatctca   600

30 aaatagttta gccatctctc ccctaatttt ctacattgca ctcggtggca gaccaccgga   660

   ccctaggctg tggggttcat tcggtcgggc attgttatgc cgaccttctt gccatgaccg   720

   attgataatg ttgatcggcc tgtgatcata tggcgtgttg tgggttaaat atgtaggggg   780
35

   cagaacatac tgccgttgtg gtatgtaata atttggtgca tagtgtgcga cagtaggttc   840

   tgtgtatgtg tatccgatat gtccggtggt acacctgaac tggccggttg tgttagctat   900

40 tattggggcg ccacgcggta gccctggtgc ggtcccggac tatccggcag agaaggccgg   960

   acggtctgtg taagggccga actatccaga caaaagcttg gacggtccga ccgtgtagag   1020

   ggccgccgat ctgccaagca aggacgatgg tgatggtatt gccctggat atgagttcat   1080
45

   caacatacca tataatggat ggggctgcaa atccccattt gtcgccgatg tattagacat   1140

   aaatatcatg ttactagttt catatgatgg aaaactagga gcaacagact tctccaacat   1200

50 acacgttaat tttctaattg gttcttctaa ccctctaatc taatgcttca cttgattatg   1260

   caaatggtct acatactgtt taatagattg gatgtcgtcg ggtttactta cgttagggac   1320

   ttgaagcgaa gatagaagag atgtgacgtc gatatcgcat gtttgacaac tttctggtga   1380
55

   cgatccacca tgtattgtga caagaatttc tccttcgttt gacacatgta gtcctcgtat   1440

```
tgttgttgct catcggtcgt cggactcttg atagccggct ttaggatatt gtccggggag    1500

atatcggtgt gatctttaga accggccatt tgatggcctg agttttagta gatctagacg    1560

catttcccca acggagtcgc caaaaagtgt gttggcgccg atccaggcgc gaaacactgg    1620

agatggaccg tttggcggtg ttctctgcgg aggtgaggac ggtccgcgac ctggcgcagc    1680

agcgactctc ctctacgtgt gtccggacgg tccgcgtctg gggctcggac ggtccgcgat    1740

ggcgcagagg gtcttcttct tcgcagccga cctagatctc gcctcccggg aggggccccg    1800

tcggggagga gagattgtag ggtgtgtctt ggcgtcgaca ggccacacaa tacgcctcta    1860

gtcgacgtag agccgaagag aggtgaagga ttgaggtgga aggaggctaa acttgggcta    1920

aactagaact actgctaatg cataaggtaa aaacgagaag tggacttcat ttgatcgatt    1980

gtggaaggtt taatcgactg tagcccttta tctatataaa ggggaggtat ggacccgtta    2040

caagctgttt cccgagctaa tctcacggtt ttagttaata aatcctgcga gaaactcgga    2100

actctaactt gattctactc atgcgcgaac cattcgtgcc tgccaccgct gcccgtccgg    2160

ctacgctcag ttaaccctgt gttgtgcgct gtgatttggt ggcatataag accacatttg    2220

caataaaaat ttgtagggat ttaacatacc aagtgctgcg gaaaggaatc gttttcggag    2280

gacccaaaat taaagaggca gatgctagag ctcgtccagc tcagcgctga gcacctgtgt    2340

tgtcctcctc gtccacgccg gcggagatga acggcaacaa aggcggaaag gccgagacgc    2400

tgagctcaag gacgtgacac cgcgcgtacc tcgcgttcag ttggctcaca caacagcagc    2460

tcgctcgccc caagctcccg cgtcctgatc cgtaggtgag ccatgcaaag gtcgccgcgc    2520

gccctgatcc attgcaccct tcaaagctcg aacctacaaa tagcgtgcac caggcatcct    2580

ggccacaccc acacagcaag ccagcagagc agaaagcagc cgcagcccca gccccacaa     2640

                                                                     2654
agacgaaggc aaca
```

```
<210>    108

<211>    537

<212>    DNA

<213>    Zea mays


<400>    108
tattggtctc ctctttctcc cgctcatctt gttgctgtta cttctccttc ctcagttcct     60

ctccacatca tatccttgtc atcctacaat tttgcataaa ggagcacacg aaaagaagag    120
```

cacgaacacg aaaagaaaga gcgaaagacc agtacatgca cactataatt gctctaacaa   180

caataacaaa acaacaatac taagtttcaa aaacacataa ttgaaccaaa catcttagaa   240

catgaagaaa aaaaaacatg ttgaaggtat ttataggggt ggagtacatc ctcgactaca   300

caacatggac cgttgtttcc ttttcttacc cctttacgct caatacatat atttaatttt   360

ttctcgaggg cgattctgcc atcacgcggc ctttattttg ggtatagcta gctgtttgaa   420

ttccaccgga ttctagaaga gacagacgct ggactggatg gtagccagag aatggatcaa   480

ctggtctcac gtctcaaaac tcgaacaatt cacgtgcggc tataggattg gtagccg   537

<210>   109

<211>   577

<212>   DNA

<213>   Zea mays

<400>   109
tggtagcata tagaacaaaa tatatttact cattctcaag tgtaactgct atttgcaact   60

actagagcat gcaatatttc tttcgaagag attaacgtga gaggaaacat gcgtgttttg   120

ccaatacaat aaaatatttc tcagtagcaa cttctaagta acaatattta tccatctatt   180

tttattcttt tccgattgat tttttgtca gaaaaatcaa agaacgggaa ttgaatttgt   240

ctcagccaca aatgacatag aaaatattaa tccaactcca acacttgcaa aaaaaaattg   300

caaaccaacc agctaaccca accctatttc ggtcactcac gcacggccag cccgccaatt   360

gaatgagccg ccgtccttgc ttcgctcgcg accgctcgcg ctgccgcacc agagcccta   420

taaaacggcg ccccgtccag aggcaggaga agcaattgag agatcaccgg ccgtcgagcg   480

agcagtctcc caattccacc caataactaa taacatctcc tcgaacgcca ggttccttgg   540

accactatat ccaggagcga cgaagtgatc cacccgc   577

<210>   110

<211>   623

<212>   DNA

<213>   Zea mays

```
<400>  110
ctgcagttgt gttctcaatg gtgcgtaggt tgtatggacc gggctgcgta gttgtgttct      60
caatgctgga gtggaggcaa ccgagcaggc cgagctgcgc cggcccatga acgtttcgtt     120
tcactccacg gctagagcca gacggacaga cgcgctccca aacacaaaca catgtacaac     180
ttaaaaaaaa acatgagtag cttgaacgag tacatacata catggcgttg ggattgacgt     240
ccatttccaa tccaacgcgg ccgcaccgca tagacgcatg ttgcatgtca tgcacgaacg     300
ggtctagaat agacagaaga gggggtgga ggcagcagcc agatcggcgg tggctgggcg      360
aacggacgcg cgggcaagac ggccagacgg gtgttgcatt tgccgttgtg ggcaaaccac     420
cgcgccacgg acagcgcgcg caccgctcct tccaatgggc gacggaccca tataagccgc     480
ggcgtcccgg ctccctgtcc ccactcgatc gtcgtgcacg ccccogccac cggccggatc     540
gacagcaccg atcaccctga ccgtctgcgc gcggcggctc tcacacaccg gcgacacgca     600
gggcgcgcat aggcgagggc ctc                                             623

<210>  111

<211>  1040

<212>  DNA

<213>  Zea mays


<400>  111
cgtgcagttg acccaatcat tgaagatggt cactacacct tgtttcgaag cctagcgaga      60
tttgacgcct cagtgttcaa ttgttacacg cagatggtat ttgtgcagat accaggttta     120
atgttgagca cagacaatgt ttaaagattt tacgtgttga ggttgtttta cttttggcca     180
actgttgata gtctttttg tacaaaagtg atgcattgta ctatcatata tagaagtttg      240
catggtattg atggttccaa tatagtgatg aaataggtag attaaaatat aaaaaattat     300
gtatggctag gatcacaaat gaattacgaa actttttctt ataacagtat aatacacatt     360
tgtatataga gtattgttgt attacatatt cccgttgcaa cgcacgggca ctcacctagt     420
ttagtacata taaaggtaat atatagcctt atcaacctgt ttcccatttt caaacgcaga     480
tcacgcattg gtcttggcac ggagccactg aagttcagac aatacgagtt cgaatagtat     540
aaaaccccaa gcatgcaatt caaagactag atctgaatgt gaggtcctcc aaaccattcg     600
cttcagagca acaagaccct tcaaagctca aaccaaattt agcagacacg gcaacacaca     660
```

```
      acattggcct gctcttgaac aacaccgctg cagaatggac gttgctcctg aaacctctcc      720

      cctccaccgc tctgcccata gcccacccca ctccctcgct ataaaagcgt ccaagaacac      780

 5
      ccaccataac aaagccgtga tccatccgaa taaacggcag actgtcatcc ctgccaaaat      840

      ctgagctcgc gtccgcagag gtccatggcg tccaagtccg tcgagctgcg catgacgctg      900

10    ctgggcgtgg ccctgctagg gctgctgctg agccagcacg cggcacccgt cgatgctgcc      960

      gagagcgacg gccccagaaa ggaaaagact agcttcagca tgaacgtcgt cggcggccgc     1020

      actctcagca gcttcagcat                                                 1040
15
```